

Surgical Oncology with Dr Donna-Marie Manasseh

Ologies Podcast

October 8, 2018

Oh Heeeyyy, it's your brother-in-law, who's so much more chill since he stopped drinking and started making ceramics, Alie Ward. And you're listening to another episode of Ologies.

So, man, woman, child, pumpkin, whoever you are, if you opened this to listen to it, Congratulations. You're not fearless. None of us are fearless, especially in the face of really scary stuff, but you are empowered, and curious, and quite frankly, a responsible person. I don't care how many empty water bottles you have in your car, or that you sent jeans through the wash with gum in the pocket. You're on it!

You're about to get so informed, and I have great news. This episode is uplifting as f***. It really f***ing is. The info is so good that I'm bleeping the cuss words so that you'll make sure to send it to your moms, and daughters, and brothers. Maybe you'll show your uncle how to work the podcast app, because breast cancer affects us all. We might be at risk for it. We might love people who are. And this Ologist is amazing. She made me feel so much less scared, and more hopeful, and more empowered.

But before we hop into it, just some nuts and a couple o' bolts. Thank you to everyone who donates to the Patreon.com/Ologies page, which helps me pay an editor, and lets me prioritize making these episodes every week. And thanks to everyone who gets themselves some goods at OlogiesMerch.com. There's hats, and pins, and shirts, there's backpacks. Thank you for telling friends about it, either in person, maybe over a game of Pinochle, or online. Every time you tag Ologies in a tweet or a 'gram, I'm so happy to see the word spread, so thank you for that.

And thank you for rating and subscribing. That keeps Ologies up in the charts, which delights me not only because I'm a petty baby who's happy that this pipe dream didn't fail, but also because that's just how more people discover it, which means they discover these Ologists and these cool science stories. And you know I'm a creep. I read your reviews. Every single one of 'em. Every week. And I present a just-plucked one from the review patch of iTunes.

This week I want to shout out a couple people. Thank you to DRG72 who says that they imagine that I'm really a fairy flying around the country in order to sprinkle knowledge dust. I like that. I'm into the visual. I like the vibe.

SierraStablerK [phonetic], also, Thank You for your review, which started, "Look, Mom. You're on a podcast, kind of." So, I did want to shout you out for that.

Thank you to everyone who left reviews. I read each and every one of them this week. Thank you.

Okay, surgical oncology. Two words. What do they mean? It means being a tumor hunter, and it's badass. Surgery comes from the ancient Greek for *handwork*. Who knew? And oncology, also Greek, is derived from *tumor* or mass.

This surgical oncologist is the Chief of Breast Cancer Surgery at Maimonides Medical Center's Breast Center in the Borough Park neighborhood of Brooklyn New York. I don't know my way around Brooklyn, but I thought if you're on the east coast that would mean something to you. She graduated from Harvard Medical School. She's been working in this field for 22 years. She is, in a word, a Boss.

I happened to be in New York, and I got myself there with my little recording kit, and I let the nurses in the waiting room know that I was there to see this doctor. And as I took a seat next to this tidy stack of magazines and starting leafing through them, a patient and her husband were leaving the office, and he was carrying this folder of paperwork. And we made eye contact and she gave me, kind of, a sympathetic smile, and it was the first of many times I tried not to cry during this. I had literally not even gotten past the waiting room door to interview this doctor.

So, I have never had breast cancer. I've never had a scare. And I know women my age and younger who've been diagnosed, who've been treated, who are marching on, and we all see the October Breast Cancer Awareness marketing, and I wanted to talk to someone who does this all 12 months out of the year to learn about her life and her work. She's passionate. She's inspiring. She's so funny. She's not only approachable as this sparkling, amazing human, but she makes a very scary topic approachable too.

We talked about boobs, and boobs. Touched on boobs also. Heads up, the term Women is used a lot to discuss breast cancer patients, but of course breast cancer happens to men, it happens to non-binary patients, trans patients as well, and we talk about that too. So, you'll hear about different kinds of breast tissue, who should get screened when, genetics, deodorants, making your body less hospitable to **** tumors, and most importantly, learn about why being your own advocate might save your life and others. So, fling your bra - or someone else's - across the room, and get cozy for a heart-warming, boob-honking chat with surgical oncologist Doctor Donna-Marie Manasseh.

[Intro Music]

Alie: Now, so you have been a doctor... You are a surgical oncologist, right?

Dr M: Yes, that's correct.

Alie: So you deal with breast health, and breast cancer, and matters of that nature.

Dr M: Everything breast at all times.

Alie: All breast.

Dr M: All breast, all the time.

Alie: How did you choose this field of medicine, and how did you choose medicine in general? When did you know, like, "I'm gonna be a pretty good doctor?"

Dr M: I'll start with, when did I choose medicine? My father will tell you I was 2.

Alie: Two?!

Dr M: He would say I was 2. I would say I was about 5.

Alie: That's still really early.

Dr M: Yeah. My father was a mechanic, a very good one, and I wanted to be a mechanic. My mother said no. I figured out the human body was the next best thing. But I love working with my hands. I've always had this guardian angel complex, coming in, and swooping in, and trying to save someone, and I wanted to do that with my hands. So, I think that's where my choice in being a doctor came in. At about 10 my aunt had heart disease, so I thought about heart surgery for a very long time. Bought all the heart things you can buy, try to read up everything that had to do with the heart, but felt at about, I'd say, the middle of my residency, or actually slightly before my residency, I spent time with a surgical oncologist, someone who deals with all types of cancer in the body. And I just felt that his connection with patients, and just that relationship you have with a cancer patient, was really special.

Specifically breast, unfortunately, came to me because the woman who would've been my mother-in-law was diagnosed with breast cancer during the time I was in research. And I had a very, very close relationship with her and just felt during that time... about two weeks before she died it came to me that that's what I should do. And I spoke to her about it, and she said, I think that's exactly what you should do.

Aside: [*chimes ringing low to high, "cry shimmer"*] Just a note. When you hear that soft, sparkly chime, that's denotes times during the interview that I thought I was going to lose it and start crying. But I kept it together in front of this stranger.

Dr M: Breast surgery's unique. Unlike other surgeries, where you see a medical specialist, they send you to the surgeon, and then after that the surgeon's like, "You're fine, I'll see you later," with breast it's a lifelong relationship. We are the ones, after a woman gets a mammogram, that starts steering the ship. We have the individual have surgery, we recommend the medical oncologist, we recommend the next steps. And even though it's a team effort, there's this continuing of care that happens, and there's an attachment that happens between the surgeon and the patient that I think is very unique to breast surgery versus other types of surgery.

Alie: And with other kinds of cancers, is it monitored for the span of your life like breast cancer is, or is breast cancer a little bit tricky that way?

Dr M: It depends. Other cancers, for the most part, are monitored for a very long time. Depending on how early your stage was, depending if you're an early stage, you would be treated and the expectation would be, if everything is okay in five years, depending on the cancer, that you would not need to follow up. Things that are later stage, unfortunately that may spread, we want to keep a closer eye on for a longer period of time. That's actually a good thing because it means that we can treat something.

Aside: Before we dive further, let's just have a quick segment [*crowd/audience all together, game show style*] "Meet. The. Boobs!" [*applause*] Please pretend that I'm wearing, like, a beige 1980's suit and a wide tie, and I'm talking into a game show microphone as I run through breast anatomy in, like, four seconds.

[*cheesy gameshow host voice*] So, you may know them as the milk-producing glands, they're the lobules, and there're about 20-40 of them making up each lobe! How many lobes in a breast? If you said that adult females have about 15-20, you won a few more seconds of this segment!

[*continuing cheesy gameshow voice*] These are passages connecting the lobes and the nipple... The ducts! Now, lymphatic vessels help flush things out and fight infections, and that stroma is on deck as the fatty tissue and ligaments that surround it all.

[*back to normal*] Did you get all that? Okay. But we all know, a breast is not just a collection of milk plumbing.

Dr M: Breast is different. If you go in the whole nature of breasts, it's not just a physical thing. There's a whole social-political background to breasts. Breasts have a very different meaning than, say, your colon. And so, I think because of that there's a longer, lifelong relationship, even though for most breast cancers that are early stage, after five years you're pretty much okay. But most women don't want to break that bond because either they think we're their good luck charm or, you know... It's a very touchy subject, the breast.

Women identify their breasts in very unique ways, from sexual, to feeding their children, to part of their identity, in some way. It's what makes us a woman versus a man, in some respects, to some people. I think because of that relationship, when you're taking care of that part of someone's body they cling to you longer and feel "Just in case, let me just continue to see this person." So, I think that's what makes it a little bit more unique.

Alie: Do you think treating breast cancer, addressing breast cancer, is different in America because of our cultural relation to the breast where breasts are so sexualized? You can't show a female nipple on Instagram but, you could show, just, dozens of male nipples in

one picture, it doesn't matter. Do you think that hinders or helps the way that you're able to do outreach and treatment?

Dr M: That's a good question. I probably would say a little bit of both. I think that it helps because in previous decades a lot of women died from this disease because of the tremendous fear associated with what we did for women with breast cancer. Decades ago we would remove an entire breast and disfigure a woman, actually. Today we have so many options for treating breast cancer, including, even if we do remove the breast, the reconstruction options are incredible. I always challenge my male interns to tell me which one do they think is real and not, and they always get it wrong. [*deep trombone notes going and deflating trumpet, gameshow loser tune*]

Which is... I'm glad. I have great plastic surgeons. [*applause*] But I think because of the way we see the breast and the way we are in this country, I think in earlier decades it was a hindrance. I think today, because women are much more empowered, and women are much more independent, and not defining themselves just by that particular area, I think that it helps because we speak up a lot more.

The reason breast cancer has so many options is because we've done so much research. The reason we've been able to do so much research is because we have so many advocacy groups that raise money for research. And the reason we have so many advocacy groups is because we are talking about our breasts. We are not going to sit quiet in the corner and say, "I don't want to deal with this, I don't want to address this." We tend to pull the sisterhood together and say, "I am here if you need it." It's not a dirty little secret anymore.

Alie: And in that vein, how important is getting the word out about self-exams?

Dr M: I'm a big advocate of self-exams. In fact, when I do my little outreach programs, I always make the following statement, that if you look at the literature it will tell you, doing a monthly self-exam is useless, it's not going to help you find anything, it hasn't been proven to change survival whether you do it or not. And I say, from a common sense perspective, when you do a mammogram you are not guaranteed because your mammogram is negative that, until your next mammogram happens, that you won't have cancer. You can have a cancer any time after that mammogram, and the only way you're going to find it is if you actually examine yourself.

I always tell women, a self-exam is very cheap, you can use your hand, you can use somebody else's hand, don't really care who does it, don't care where you do it, but just have it done because you will find something... In fact, people do come in that have felt something and will say, "I just had a mammogram." Because mammograms are not made by God. Basically, they're not perfect, so use all the tools that you have, in general, for your health, to try to diagnose things as early as possible, because cancer is best treated the earlier it is.

So, if you do a mammogram and you feel something, don't say, "My mammogram was negative. I'm good." No. Something's not right, and you're only going to figure that out if you examine yourself. Some women aren't comfortable with their breasts, and I say, get a spouse, get a girlfriend, get the dog, I don't care. Get somebody to examine you, and if they feel something that's just off, see a healthcare provider and I, hopefully, will tell you it's nothing.

Alie: They ought to have an app for that.

Dr M: I think there should be an app. I'm trying to work on the app but I can't figure out the hand part of it. There's no hand on phones yet.

Alie: Like a task rabbit, just come over. Just palpate mah boobs.

Dr M: And then let me know if they feel anything. Send an emergency text message to me. That would be good.

Alie: Now, can you break down some stats? Like, what are we at, currently, with how many people get breast cancer? What are survival rates like? And how has that changed since you started practicing?

Dr M: If you look at the statistics the American Cancer Society puts out, still over 250,000 women per year are diagnosed with breast cancer.

Alie: In the US?

Dr M: In the US. Unfortunately, about 40,000 still die of the disease. It's tricky because what people don't recognize is that breast cancer is made up of very different types of breast cancer. It's not just one type of breast cancer. There's a spectrum.

Aside: Remember all those different things that make up a boob? Different types of tumors can occur depending on the location in the breast. So, a ductal carcinoma may start in a duct, and a lobular carcinoma in a lobe. Some have not spread to the surrounding breast tissue, but others, called invasive, have, which is why early detection is clutch.

How does this cancer even start, though? Dr. Manasseh is incredibly gifted at explaining things in understandable terms, and she's also, incidentally, hilarious.

Dr M: So, the incidence of breast cancer has increased, more so because our technology's better at picking up the smallest little detail. And in our bodies, there are probably cancer cells circulating all the time, because remember, a cancer cell is a normal cell that just went a little quirky. Those quirky, funky, cells. [*cartoonish crazy yell aaahhhh!!!*]

So the police, otherwise known as your immune system, go around and take care of them. When they don't take care of them, or worse when those cells recruit the police to

their side – so now you have dirty cops – then they take over and the cancer cells grow. They're not foreign invaders. They're actually your own cells. So, these cells, as they circulate, if they get destroyed, great. If they don't, they grow. And so, if we're picking up some of these cells that are actually really, really early, like haven't figured out how to invade, but on a mammogram they show up, and on my biopsy it shows up, now I'm treating you as a cancer patient. Whereas before mammograms, believe it or not, some of these we didn't pick up and may not have done anything.

Aside: So, because of better awareness and early detection we're seeing more cancer patients but better prognoses for them if treated early.

Dr M: The problem is, once we know about it, we don't know exactly which ones really will do something or which ones won't. We're not there yet. I think we will get there, but for now we have to go with what we have. And we can't just assume somebody has something that's probably not going to be an issue and God forbid it's something later.

Alie: Right. Let's have Lump 101. Boob lumps, break it down. I know you could have a fibroid. You could have a cyst. You could have a tumor. I know that there's probably a lot of confusion if people feel something. Like, what are we dealing with, and how do you tell the difference, and what should someone know?

Dr M: The basic Rule #1, which I tell my high school girls to do, if you examine yourself regularly, be familiar with your breasts. Anything different than what you're used to feeling is a problem, a problem that needs to be investigated. There is no, "this is exactly how cancer presents." There are many different ways it can present. Sometimes it presents with a lump or a mass, sometimes that lump or mass feels like what we think should be benign but it's not, just because of the features of the cancer. Sometimes it presents with the breasts being red and there's no mass. Sometimes it presents with the nipple being an innie when it's usually an outie. Sometimes it doesn't present with anything at all.

So I always tell women, the best thing to do is to be familiar with what you're used to feeling like and if the breast just feels different... And do it around the time of the middle of your cycle because your breasts get lumpy during your cycle, but do it in the time when it's the middle. You're more likely to feel if there's any kind of a change.

Aside: PS, if you're ever, like, whyyyy do my boobs hurt sometimes? Whyyyyy boobs? WHY? I just looked it up, and they are in cahoots with your ovaries! Clearly, they're making mischief, they're making hormones. So, estrogen's like, "OMG, let's elongate these ducts. Let's have a baby." And progesterone is like, "Hell yes! I'm on board! I'm going to increase the number and size of the lobules so we can get ready to feed this baby we're gonna have!" And after ovulation, progesterone is ready to party, makes blood vessels enlarge, fill with fluid. These things are engorged. They're tender, they're swollen.

Ovaries are like, “Do you love this?!” And you're like, “No, I'm literally studying abroad in Portugal for a year. I'm not having a baby, maybe ever, definitely not this month.” And your ovary's like, “Okay, fine. I'll try again in another 28 days, until menopause.” And that's why your breasts change throughout the month.

Also, there are benign cysts and fibroids. But if you notice anything that's off, [*over-the-radio*] Get it checked. Dr's orders.

Dr M: And you could have things like cysts and benign stuff for sure, but it's better to have someone investigate it and prove that that's what it is instead of saying it's probably that and letting it sit.

Alie: Now, you were talking about cells that get a little whacky and don't get caught in time. So, how much do you think lifestyle, or stress management, or nutrition is a factor in trying to stave off cancers, particularly breast cancer?

Dr M: So, if you consider that the immune system is what we use to fight off cancers and other evil spirits in our body, then stress and all the things we're talking about, nutrition, actually affect that. So, sitting here in New York it's hard for me to tell everybody, ‘try not to be stressed, children.’ But it really does play an incredible role. In fact, if we were able to live like Buddhists and not be stressed, we would eliminate the three top killers of humans: cardiac disease, cancers.

Even when you think of mental health disease, Alzheimer's, these things all have some degree of stress, because what stress tells your body is you need to be in a constant state of activity. Anything in a constant state of activity is eventually going to wear itself out or not be as good. Think about it as your immune system gets worn out and can't... like, “I can't do it.” Your immune system gets, basically, burned out. So it can't now protect you in any particular way.

Nutrition is, as far as I'm concerned... and I'm also Jamaican, so nutrition is everything. We are not at the point yet in medical science to say, you can treat this cancer with bananas. However, we do know that fried foods, red meat, pork... there are certain things that are inflammatory foods, things that make your body stay in an inflamed state.

Aside: I'll definitely go further into this on a future rheumatology episode on inflammatory disease, but quick rundown of foods to avoid according to a Harvard University Medical site: refined carbohydrates like white bread, pastries, pasta, all of the things you eat when you're sad; french fries and other fried foods; soda and other sugar-sweetened beverages; red meat and processed meat like hot dogs and sausage; also margarine, shortening, lard.

Now, we all see these items and they're in the ‘no doy!, bad-for-you’ column because we've it heard for years. And they're calorie dense, so it's easy to say, f*** off, I make my

own choices, I don't care about the calories. But when you look at it from a, "Well, my tissues hate this and it impairs my ability to clean my body of cancer" standpoint, then yeah, that's a whole new ballgame. So, ooof, that's a good point, Doc.

Dr M: That inflamed state, basically, is creating a fertile soil for bad, whacky cells to continue to grow. That's where nutrition comes in. I think if you look at some of the chemotherapeutics, the drugs we use to treat some of these cancers, some of them have come from trees. The Pacific Yew tree is a tree that we use to create one of our chemo drugs and it's very effective.

Aside: So, Dr. Manasseh is talking about the chemotherapy drug with the brand name Taxol. Cute, fun, quick history: In the early 1960s a 32-year-old botanist named Arthur Barclay collected samples in the forest of Washington State to be screened for possible anticancer properties. He grabbed some bark from a conifer that was otherwise pretty useless to the lumber industry. Nobody cared about it. Two doctors, Dr. Wall and Dr. Wani, found that among 30,000 botanical samples the Pacific Yew had a negative effect on tumor growth, which is a positive effect on your boobs.

So later, a doctor by the name of Dr. Susan Band Horwitz figured out exactly why it worked. The active compounds cause cancerous cells to rip apart their own DNA and they die. Now, after decades of testing, the medicine was approved by the FDA in 1994. It's known generically as Paclitaxel, and it can also treat ovarian cancer, lung cancer, cervical cancer, pancreatic cancer. That's just one way a plant can save a life. Another reason to believe, in the words of Clive Owen [*clip of Clive Owen saying, "Eat your vegetables"*]

Dr M: So, you can extrapolate to think that if I eat enough broccoli, or if I eat a good fruits and vegetable diet, a plant-based diet, that I'll get the benefits of some of those items. Instead of being in an inflammatory state, now you're in an anti-inflammatory state. So, even if you have a cancer cell floating around in your body it won't grow. That's the difference. I think in breast cancer health, and I think cancer in general, we were first attacking the cancer cells. I think we've switched to fixing the soil. Which is cool, right?

Alie: That's so interesting. Yeah. Is that something that you've seen change a lot since you've been in practice?

Dr M: Absolutely. I think it's a wonderful time for cancer medicine right now. The amount of discoveries with respect to how we look at the disease, with respect to the treatment of this disease, has changed more in the past, I'd say, 15 years than the past century.

Alie: That's crazy. What do you owe that to?

Dr M: A couple of things. I think technology is one. If we don't have the technology to be able to look at these cancers in a specific way, we now can look at the genetics of a cancer and target therapies for that. I think, as I said before, the advocacy's a big deal. You need

funding and money to fund these research items and to develop these technologies. And I think Komen, as a perfect example, has raised a ton of money, along with many other organizations, Research Foundation, etc. And these funds go specifically to research, which then allow people to develop the ideas they have, and to look at and understand the cancer cells and what they're doing, and develop ways to treat them. Because we've gotten so good at trying to finally understand what it's doing, we now can figure out, "Hey this drug we developed may be good for this situation."

Alie: And how do you feel about genetic screening, like the BRCA? Is it BRCA...?

Dr M: BRCA 1 and 2, yep.

Alie: How does that impact the decisions that you make, and also the prophylactic, like, double mastectomies, or partial hysterectomies? How much do you see people just saying, "You know what, I've got the gene, I lost someone in my family, like, let's go."?

Dr M: So I'll tell you a story, but first I'll say I'm a big advocate in knowing your genetic health. I think more information is always better. I think in order for you to survive and live well, it's all about knowledge and information. So what we used to say is if you have the right family history, meaning either you're a certain heritage Ashkenazi Jewish heritage, or if you have a number of women in your family with breast cancer at a young age, you're a potential candidate for having this gene, let's check you. Now I think what we would more say is, personally, I think almost every woman should probably be tested if possible. That's kind of hard to do, but I think somebody in the family's got to be that index person, right? Somebody's going to be that first person. We haven't caught up from an insurance coverage perspective to allow that to happen, unfortunately.

There are those things out there like 23andMe and those types of genetic type stuff, which I think is important, but I think it's more important for listeners to recognize that if you find something on that test it needs to be evaluated because nothing's perfect. And I think if it came back positive, you need to see a geneticist and check it.

The story I'll tell you, which will probably leave an imprint, is a young woman, probably about 29 and her aunt got breast cancer, her aunt's probably in her mid-fifties, sixties. So, not somebody really young but being empowered and who she was, she encouraged her father, the aunt's brother, to be tested because, hey, your sister's got breast cancer and it's the only person in the family by the way, you need to be tested.

And he was like, [*dismissively*] "yeah, yeah, yeah." Ultimately he gets tested and lo and behold, he happens to carry the gene. So she decides, well, me and my sister have to be tested and she also, ultimately, has the gene. Now, she's in her twenties, she's been getting imaging like the MRI and such to keep an eye on things. And about two years later we find something on her MRI. This little something, thank god, was a stage zero. Very, very early cancer.

Alie: Oh boy.

Dr M: If she had not done that, any of the things I just told you, this young woman would have presented in her thirties with an invasive cancer.

Alie: That gives me goosebumps.

Dr M: It does. But it's also great, right? Because she was empowered with the information we started screening her. She's 20-something years old! We were not going to screen her for anything. She had one aunt with breast cancer, she was not going to be screened for anything. And I love seeing her because I say "You saved your own life!"

Alie: Ah! Right.

Aside: Just, gonna drop another one of these bad boys: [*cry shimmer*].

Dr M: So, I think when it comes to the genetic question, I think more information is good. I think people get scared by information because they don't want to know. But the problem I always tell them is that eventually you will know. Why not know when you can do something?

Alie: Oh, that's so true.

Dr M: Right?

Alie: That's true for everything from like car repairs to retirement funds.

Dr M: Car repair in particular is like, "I don't want to know! I don't want to know! Please keep starting. Please keep starting!" Yeah, exactly.

Alie: And now, can you tell me a little bit about imaging? What imaging methods do you recommend? I know mammograms are supposed to start when you're 40. Nowadays, is it better to do MRI's? Is it better to do mammograms? What do you suggest?

Dr M: So, we have three modalities for imaging breast; mammogram, ultrasound, and MRI. Right now the recommendation is mammograms - average risk person, start at age 40. I don't care what any other news media says, that's what you do. I'll tell you why I believe that strongly. One, the literature backs it up, but I'll tell you why, but mammograms is what you start with. If your breasts are dense, which is determined by the mammogram - so you can go feel yourself people, but really it's dictated by a mammogram, not by your exam - then we add an ultrasound. So now you're getting an ultrasound and mammogram because it's just two ways of looking at the breast. The mammogram kind of looks... takes a picture of the breast, looks at the architecture, ultrasounds, looks for anything that's cystic or solid.

Then we have what's called an MRI, which we use more cautiously. We don't use it as a screening tool unless you have a gene, or a strong family history, or we're evaluating something, and that looks more at the activity that's in the breast itself. So, the average person, average risk, it's a mammogram or ultrasound starting at age 40. People have said in the news that mammograms, "Why do we need to get a mammogram? They always tell me my breasts are dense, they're not gonna see anything." Problem is, a mammogram, even if it doesn't see something for every person, it's much better than me examining you, okay?

By the time I feel something, the mass is now a larger mass. A mammogram can pick this up before it gets to a certain size in some cases. So even if it's 50 percent in the worst-case scenario at picking something up, 50 percent is better than zero. You take away a mammogram, we're now back into 1950s and 1970s before the mammogram started.

Aside: Mammograms were invented in the mid-1960s, and then in 1976 machines became more widely available for routine screenings. Also, I am neither a lawyer nor a doctor but opinions on this topic vary, and when it comes to your own health and screening schedule, this is a free podcast that can neither diagnose nor treat diseases, so please consult your own healthcare provider. But yes, back to the olde timey days when doctors diagnosed things by observing leeches, and consulting oracles, and looking to the sky to ask the ravens who was in danger.

Alie: Right. It's crazy to think that there was... I mean I realize that there was a time before mammograms because there was a time before, like, electricity. But still, like, to think that even in the '70s...

Dr M: Yeah, '70s, '80s actually, people were still questioning it because, again, it's technology that's foreign, it's uncomfortable, it's not fun. But in the same sense... And I joke with people that I talk to in my outreach because I say... if we didn't have a mammogram and if I said, "I have a test that pick up a cancer 50% of the time," people will be clamoring for it. If I said, "you can't get it," people would be saying "No, no, no. I need it. I need it." Do you know what I mean? If something else comes along that's better, by all means let's compare mammogram to that. But if we don't have anything else except for my right and left hand, [*applause*] I'm going with the mammogram. Even though I'm good with the right and left hand, I'm still going with the mammogram.

Alie: Do you have any tips for making a mammogram just a breezy vacay of a doctor's appointment? Just, so fun?

Dr M: Absolutely. So, what I do at my own is I actually schedule a dinner right afterwards and shopping. I'm little, so it's not the most comfortable thing in the world. I often say take an Advil or Motrin to, kind of, preempt it if you will, and then have plans. I always have plans with a friend of mine - she happens to be my radiologist so it makes it easy - we're going to dinner afterwards and we're going shopping. That way you have something to

look forward to afterwards, because it's uncomfortable, there's nothing I'm going to be able to do.

And the reality is if the technician eases up on you, she's not compressing the tissue enough to be able to see what needs to happen. So going back, the way a mammogram works is it compresses the breast tissue and everything that's breast, kind of, spreads out and things that are not, like a cancer, won't. So if they don't compress it enough, then things are going to look like their cancers when they're not. So they need to compress it so that if something is there they can see.

Aside: So, treat your boobs like a panini, or a turkey burger in a George Forman grill. It's just better squished! [*man's voice, an old TV advert, "Now, you and your family can enjoy the tender, juicy, and delicious taste of grilled foods in just minutes."*]

Dr M: So I'm in the machine saying, "Compress away now because you're not getting a second chance." And then I need to go get my wine and dinner. So, that's what I do.

Alie: So you need to do something to slightly annoy your radiologist so she has a less tender touch with you. Just piss her off just a little.

Dr M: Just enough so she'll make sure she gets it in, and then you're good.

Alie: That's great advice. Just schedule something fun afterward.

Dr M: I think you absolutely have to.

Alie: I think I should do that for my tax appointment.

Dr M: Everything, and anything that's hard to do. If you think about, if you remember when you were a kid, when you got vaccinated, they gave you a lollipop or a toy. Why should that change because I'm 40-something years old? I think that's something that should not change at all.

Alie: Oh that's such good advice!

Dr M: Works for me.

Alie: So, those are the imaging modalities. Can you run me through a couple of the top therapies? Let's say that you get a diagnosis, which affects 245,000 women and men a year... because it doesn't just affect women, it affects men, non-binary, so many people. What are the plans of attack that you have?

Dr M: What's good is I can tell you there's a tremendous list of the plans of attacks. I'll put them in categories to make it easy. There's three ways we attack this. Sometimes we use one way, sometimes we use two ways, sometimes we use all three. One is surgery, so getting it out, two is some kind of drug therapy. And three is some kind of radiation

therapy. Depending on the specifics of the tumor, the tumor tells us what it's going to do and we give it an answer back, to make sure it doesn't do what it plans to do.

Aside: This is like the worst version of call and response in country music or a rap battle involving one person who obviously sucks.

Dr M: So if you have a really early cancer, let's say a non-invasive cancer that was picked up on a mammogram, very tiny, most times you can get away with just surgery, sometimes we might give you radiation to that area if we save the breast tissue, and sometimes we give you a pill. If you go down the path of an invasive cancer, which means it can spread from the breast, now we're not just protecting the breast tissue, but we're protecting the other parts of your body. So, how likely it is to do that dictates what we do in terms of drug therapy, because surgery and radiation can only go to the local area. Drug therapy goes through your entire body. So if there are any cells anywhere in your body that we can't see today, the drug therapy presumably eliminates it.

Alie: And now, in your surgery... because you're a surgeon.

Dr M: I am, a proud one.

Alie: Wow. Like you're in there.

Dr M: I'm it! I love it!

Alie: You've got a net on, you've got a hat on, you're scrubbing up, you got a mask. I think if you are ever in a job that is also a Halloween costume, you're winning.

Dr M: I think that's great. That's right.

Alie: And so what is it like for you when you're like, "okay, it's surgery day, I'm gettin' in there." Do you have, like, a routine, like music you listen to, to pump you up? How often are you in surgery? Is it every day, once a week you do it? What is that like?

Dr M: Surgery for me is the point of it all. It's me doing battle with this disease that's trying to take someone's life. [*cry shimmer*]

I operate on Mondays and Fridays, occasionally Thursdays, but usually it's about two to three times a week depending on what's going on and depending on what the needs are. But on Monday morning, you're drudging, I'm going to work and I get to put my pajamas on. It's my favorite outfit in the world. If it were up to me, I'd be wearing scrubs and clogs all the time. It's my favorite thing.

Alie: It's so soft.

Dr M: It's "IT." First of all, I'm a little bit taller because I'm wearing clogs. That's even better. I wear a scrub hat, so it's just the best thing. But I think it's a privilege and an honor to be that intimate with somebody. [*cry shimmer*]

I think everyone can identify with the fear of going to sleep and putting your life in people's hands, and I take that extremely seriously. My ritual is to pray at the sink. I ask for guidance of my hands and wisdom to do what I know that I've been given the talents to do. Thankfully, today we can see the cancers on our imaging but we don't have these big gnarly cancers that we're taking out. So, I'm usually taking out what looks to me mostly like normal breast tissue, but I know when we take the picture of it, I'll see this cancer. And I sneer at it usually, and say, "You're out," [*old cartoon umpire "Yooooou're out!"*] and put this patient back to what I call an empowered state. She's kicked cancer's butt, and I was there to help.

My second favorite part of this whole experience is going out to the family and getting my hug. [*cry shimmer*] That's my favorite, especially when the spouse is six feet. I'm 5'2" if I'm lucky, and this guy's six-feet-something, just grabs me, and... You get to feel in that moment the intimacy of the human experience of what just happened. For me, it's what I do. I've been doing it for a number of years, but for this person they have not. And there was something that was threatening them and we just took care of it.

Alie: Wow. Do people ever ask to keep it?

Dr M: Actually... funny, not the cancers. The benign stuff I take out they want to see, but the cancer, I've never gotten asked that. Benign stuff, they want to see it, "Can I see what it looks like?" We can't give it to them for sure, but we may take a picture of something, but rarely. You know, we can't give people body parts.

Alie: Yeah. I don't know, they're like "It was mine a minute ago!"

Dr M: Exactly. I'd say, "Yeah, but now it's mine."

Alie: You must get updates and stories from people all the time. I imagine that it's, kind of, like you have this big growing family.

Dr M: Yes.

Alie: Did you anticipate that when you started this job? Did you realize, "Oh, I'm going to have hundreds of people in my life who I feel really connected to and invested in"?

Dr M: No, not at all. Especially because as a youngster I was more to myself and I had maybe one or two really close friends, but I wasn't the person who had like a horde of best friends and family, and with my patients I do. One of my favorite stories is there was a young woman that I diagnosed the week of my 34th birthday and she was 34 years old. Of course she comes in, attractive, just full of life, etc. And she felt this mass and... There

are many times when you examine somebody, your heart just drops into your stomach and you just know. [*cry shimmer*] And she was coming in with a full thought that this was going to be a cyst or something. So her mindset was different, and basically we treated her, and we became actually really good friends.

And one day she sent me a picture. I'm looking at the picture... and this was like four or five years after her diagnosis. I look at the picture, and I'm trying to figure it out, and you think I'd figure it out, but it just didn't make sense with her, and it was an ultrasound of twins. And so I was like in tears of just... I'm somewhat a part of that. She now has two beautiful boys that are 10 years old. But just that whole process she had gone through and being a part of that process. She is family. Anytime she comes near this area we try to get together, and I look at those boys... just how our whole relationship started, it's just amazing. It's an incredible experience that I would do over and over again.

There are I'm sure a lot of patients that are older that will call me their daughter, and my staff will say, "I think your mother's outside?" I'm like, "No, my mother's in Florida." They're like, "No, that's my daughter," "No, that's my daughter." So it's really cool. It really is. I think that's a cool part that I just did not anticipate but I absolutely love.

Alie: I mean just in this interview I've already had to try not to cry, like, five times already. Have you ever lost it? Like, how do you compartmentalize and not just be like, "Oh, God, emotions!" because what you do is so touching.

Dr M: It is. We've had a couple patients that really will grab you. I'm sorry, I keep telling you stories.

Alie: No, I love it.

Dr M: It's the way I work. We had this one couple recently, they're travelling from abroad, but they happened to be here for work. A young woman actually fully pregnant, probably like a week from delivering, and unfortunately the breast just didn't feel right to her and she was rushed to us. Sure enough it was going to be positive, and she actually was this very strong like, "Nope, it's good, I understand," but her husband started to just break down. I can do women crying. I can't do men crying, because the power of what's happening becomes real. And he just talks about how, "We've known each other... and you need to save her, I've known her for 17 years," etc. [*cry shimmer*]

Alie: Oh I'm gonna cry.

Dr M: Exactly. And so what I do in those situations is, number one, I have to remember that when somebody looks at me, they look at me as, "You're gonna help me." So, if you're on a sinking ship and the Coast Guard shows up and starts crying, you kind of get a little nervous. So I have to tell myself that a number of times, because these things are emotional, I'm a very emotional person naturally because I think you have to be in this

field. I think it's more important that that patient needs to know that, "if she's not worried, I'm not going to be worried," and I try to relay that.

Now, I'm not made of stone. I will step out if it gets too much. And that was one case where I said I'll be right back. I'll give you a minute. And I walked into a room with my PA and the two of us were just like, "Okay, let's try to keep it together," because this is a human experience. This should be the best time of their lives. They're having a baby in about a week or two, and I just told her that she has cancer in her breast. It's surreal, right?

Alie: And now what do you do to decompress? Do you think about work a lot when you're off work? Or do you have a very compartmentalized life where you're like, "I'm off work, I'm home, I'm with my family, I'm with my pet parakeet." I don't know if you have a pet parakeet at home, but you know what I mean? Or do you think about work and read articles a lot when you're not at work? Where is that line for you?

Dr M: So, I've never seen this job as work. That's number one. It's something that I really enjoy from a physical perspective and intellectual perspective. So, reading about these things is actually very enjoyable to me. I will read outside of work to figure out what was going on with my patients, etc. But I also like to write, and try to write down and capture these human experiences. As you can tell by that back wall, I love photography. That's all mine.

Alie: Oh my god that's beautiful!

Aside: On the wall behind me were about a dozen framed, enlarged photos that looked like professional posters of gorgeous flowers, birds, sunsets. Things you want to stare towards and breathe deeply at. Next to her pictures, on a hook, hung her freshly pressed lab coat, embroidered with her name over the breast pocket. The juxtaposition of science and art, purpose and pastime, formed a scene that would be almost too on the nose for an indie film, but it was real and I loved it.

Dr M: That is my go-to device when it really, really hits the fan. I just grab my camera and I go somewhere. And I also have probably one of the most incredible husbands in the world who has had his own set of tragedies and has developed, basically, the strongest emotional quotient I can think of, and is really good at being humorous when he needs to be, and quiet when he doesn't, kind of like our German Shepherd. He really does, like, "Let's go for a ride." He really knows how to read me.

So, having that and having, I think a strong support family and a support system, I think it's true for any job you're in. If you're having a tough day, I'll either call my sister who will maybe crack me up with something my nephews did, or I'll call a friend of mine, or you know... Having that I think is very important for everybody. So that's how I kind of keep it together.

Alie: And how do you recommend that your patients keep it together? If someone's newly diagnosed, what is the best thing they can do for themselves to really beat it? Like, what's the best course of action they can take? What's the best mentality to have?

Dr M: They need to laugh. I try to make them laugh. Humor is the biggest thing. You naturally feel really good when you laugh because, thankfully, we have a disease process that is actually, for the most part, very treatable. Knock on wood, I've ran across a few cases where we really can't do anything at all and usually it's because, unfortunately, somebody was so scared that they took a long time to be seen and diagnosed.

For women who are getting their mammograms regularly, usually it's a very good outcome. It's rare. In fact, it kind of shocks us sometimes when it's really bad. So I tell them, listen, this sucks for sure, no one's debating that, but you are going to be okay. I've been doing this long enough to know that, and you need to find moments of pure joy and whatever that is for you, go and do. And try to keep the humor if you can, but also pay the piper when you feel upset. You need to acknowledge that this is something that's affecting your mortality, and it's important to... whether you want to write it down, but pick that thing that makes you happy. My sister often says... because I asked her how does she always stay happy because she seems to be happy all the time. She craves joy, like she's craving water, so in every moment, "What's the thing that's gonna make me happy right now?" And if you do that, little moments, turn into big moments, turn into a lifetime.

Alie: Oh, that's such good advice.

Dr M: Yeah, she's good at that. She's really good at that.

Alie: Man she's got it started. She's got to do some tattoos!

Dr M: She's got to do something!

Aside: Since I've sat down to edit this episode, the last few days I keep asking myself where or how can I find joy, and boy howdy that sh** is hard, but it works!

Alie: What do you recommend for partners of people who have been diagnosed?

Dr M: So for caregivers, I often recommend... One, we have a lot of support groups and I'm sure there's tons of online things you can go to, but the simple things are to just really be there for the person. Don't feel like you have to constantly try to help or talk about it. Sometimes you distract them. Let's go do something else. Let's try to do something that we just wanted to do. Things have changed, but they're not finalized. We're not doing a will. This is not a death sentence. Let's try to just create a new reality for ourselves, and just be there for the person. And sometimes the person won't want to talk about anything, sometimes they don't talk about the cancer diagnosis at all. I think being there

for the person, for whatever they need is the best thing that you can do, and saying, "Look, I'm here if you need me, that's all I can do."

Alie: And how do you feel about October? I've always been curious about this because October, it's breast cancer awareness month and you're like... I can see that it's like, great! Everything from Delta Airlines to Pepsi or whatever. It's pink, pink, pink, pink, pink. But then... what about the other 11 months?

Dr M: Yeah that's my thought, "Okay. Breast cancer doesn't happen just in October."

Alie: Right?!

Dr M: You know, I love October because I always call it my rockstar month, because that's usually when I do a lot of talks. I love October for what it symbolizes. If you think about how breast cancer was viewed in this country prior to Betty Ford coming out and saying, "I had breast cancer."

Aside: *[clips from Betty Ford's speech, "I just cannot stress enough how necessary it is for women to take the time out of their active lives and take an interest in their own health and their own body." and "Early detection is the secret."]*

Dr M: And Edith Bunker coming on television and saying it.

Aside: *[clip from All in the Family]*

Edith Bunker: I got a lump in my breast.

Gloria: What did you just say?

Dr M: Women were scared. They didn't say anything about breast cancer. We didn't talk about it.

Alie: That's so crazy!

Dr M: It is, right!?! Because our generation is not like that. And that fear led to death. Plain and simple. Straightforward lead to death because you didn't tell anybody, you didn't want to see your doctor. I think because it's in your face so much in October, that's actually when we see more patients for mammograms because people start thinking a little... 'cause it's right in front of you, and people start thinking about it a little bit more.

So I think the advocacy and the awareness that happens with October is necessary. With that said, I often tell patients breast cancer just doesn't happen in October. We do talks outside of October and you need to be evaluated outside of October. Some of my patients are sick of October because they're tired of the pink, they're tired of the emphasis. But I have to remind them that there are a lot of women out there who have not been in your shoes, or are yet to be in your shoes, and that's who October's for. It's

not just to celebrate the survivors. I think it's more to celebrate the ones who will become survivors.

Alie: Oh. [*cry shimmer*]

Dr M: Yeah.

Alie: God, that's hard to think that there are a lot... It is with 250,000 people diagnosed a year there are so many people out there that don't know that this is going to become their cause.

Dr M: Right. Exactly.

Alie: Have you seen anything change, shifting in terms of awareness for patients who are men, or who are trans, or who are nonbinary, like having it be less of a of a woman's issue necessarily and having it be more of a 'could happen to anyone'?

Dr M: So what we're trying to. In fact, when we do our talks, we try to mention that a lot more, increase our awareness. And for the trans population in particular, it's actually a relatively new issue. It's funny because we were talking about this only this morning at our conference, because these individuals are taking estrogen, and what we know about breast cancer is estrogen is involved. So, it gets concerning when someone's actively taking estrogen for good reasons. We don't want them to now increase a risk of something that could be bad.

So, it's a relatively new area. But I think it applies to anyone across the board, male or female. If you feel something on your body that was not there before, evaluate it. I don't care what you are. Anybody can get a cancer. Anybody can get a cancer anywhere on their body. If it's something that's not normal for you, it doesn't hurt you to see somebody, for them to say, "Eh, that's nothing." I'd rather do that than say, "How long has this been here?"

Alie: Right. And plus if you get a mammogram, you can go out to dinner afterwards.

Dr M: And get a toy. You have to get the toy, you can't just do the dinner, it's the lollipop or the toy. Remember the light bulb and the toy. Don't forget the toy. The toy is important, it's very important.

Alie: [*laughing*] So figure out where you're going to go toy shopping?

Dr M: You've gotta go toy shopping!

Aside: [*high cutesy voice*] Urrgh, Dr. Manasseh is a treasure.

[*normal voice*] Okay, getting back to hormones.

Alie: How do hormones affect breast cancer? Because I know a lot of people now, since the '70s, '60s, more people are on birth control. More people might be taking hormonal therapies for other reasons. I'm on a hormone patch because I have sh***y ovaries that are like, "we're out before 40." So how does hormone therapy effect that? What do we need to know about that?

Dr M: So that's a controversial topic. But the long and short of it is, we know we may not know the exact mechanism of how estrogen directly causes a breast cancer. We know that women get it more than men, and women have more estrogen than men. We know from some hormonal studies on hormone replacement therapy that some women may be at an increased risk. I have women who take hormone replacement therapy for most of their lives and never get a breast cancer. I have women who never take it and do get breast cancer. I think you have to do good nutrition, good health, which means exercising, walking at least 30 minutes a day, low stress if possible, and those things build an immune system and build an environment where things cannot develop.

So, you may take estrogen and alter, let's say, the cellular structure, so now it's ready to go out and conquer the world. But if the soil is not good for it, if the soil is too healthy for it, it won't thrive. Right? So I think the hormone story is going to be that, for the most part, it's probably safe. I think moderation is the key to anything. If anyone is menopausal and they take hormone replacement therapy, I always say, take a break if you can. Reassess, take the lowest dose possible. As human beings, we were not designed to take hormones or have hormones in our body forever. There's got to be a reason for that. But with that said, you want to not bite someone's head off, and you want to live comfortably, and continue to have a good sex life? Then take it.

And so I think it's important to look at life as a holistic approach, right? You want to be healthy. That's mental, physical, sexually and spiritually. That's what you want. And the way you do that is a multifactorial process. It's not, "Okay, I'm not going to take a hormone and I'm good with breast cancer." That's not gonna happen because you may have the genetics that allow that to happen. Your mom may have eaten something that allows that to happen. You may live near God knows what. You may be too stressed out. I have these patients who are great with nutrition and exercise all the time but they're stressed out of their mind. What do you think that's gonna do? You know what I mean?

Alie: That's such a good point.

Aside: [Alie sounds thoughtful] BRB, falling down a thought spiral, just evaluating my whole life...

Alie: And how has your work changed, in terms of breast implants? Because I know that... I'm sure that in the '70s, before that, that maybe wasn't around as much. As a surgeon, do you have to, kind of, advise patients differently if they've had them in terms of their screening and any kind of surgical answers to it?

Dr M: Luckily, the way our screening is done, we can screen women with breast implants easily. It's just a different technique that we use. In the past, like when I was starting, implants were placed in the breast tissue specifically. The reason that was dangerous is because it would block some of the tissue from being seen on the mammogram. For the most part today, I think almost 100 percent, the implant will now be placed behind the muscle, or behind the tissue so that you can see all the tissue that needs to be seen on a mammogram. So for the most part, they're not put into what we call the breast tissue specifically.

Aside: If you're wondering: "How long have we as a species had boob implants?" Well, then we have the same brain. I looked it up and in the early 1900s doctors were very creative and resourceful using all kinds of items as surgical breast implants, from ox cartilage, to ground-up rubber, to wool, formaldehyde polymers, strips of tape wound in a ball like yarn, to ivory and glass orbs. They were like, "It look like boob? Put where boob is!" No.

Silicone was also injected just free-balling around the breast tissue, and then in the early 1960s, Dow Chemical patented silicone breast implants, and there were saline ones after that. There have been all kinds of studies about the psychology of getting breast implants that I won't go into because that's a whole other field of study. But you can always see the Kalology episode if you're struggling with body issues and want to fortify perhaps, your self-acceptance. As a person who fills out an A-cup only when I'm just bloated from a teriyaki bender, I can tell you that pulling back the curtain to reveal cultural beauty sickness is helpful in accepting yourself. But from a medical standpoint, how does the doc feel about them?

Dr M: I think for women who lose their breasts to cancer or to prevention, some of the implants are incredible. You can't tell. I'll examine a patient. I'm like, "Wow this feels really good, have you felt this?! This is really some good stuff you've got going on here!"

Alie: Which ones are those?!

Dr M: Those are the silicone gel ones. I don't have a pair in my office, [*Alie laughing*] but if you ever get a chance... if you have a girlfriend [with breast implants] say, "Hey, look, don't mean to be weird, but I've been instructed by Dr Manasseh..."

Again, knowledge is power, and people have a fear of, "If I remove my breasts, what is that going to look like?" So I often will send them to my plastic surgeons, who are incredible people, and let them feel the implants and say, "This is what it feels like." So, I think it's important. I like implants. And it's funny because the A's want to be B's and C's, and the C's and D's want to go back to B's and A's. It's incredible.

Alie: You know, I had a gynecologist on for the gynecology episode, Dr Phillipa Ribbink and she said:

Aside: *[clip of Dr. Ribbink from Gynecology]*

"No one likes their own boobs. It seems like very few people really find that their breasts are... They're either too big, they're too small. There's no better lesson you could teach your daughter than, 'Love Your Body'."

Alie: Everyone hates their boobs. I was like, "Really?!"

Dr M: Yeah. I think it's an image thing. In Europe I think they love their boobs and here we don't as much. I don't know. It's a thing.

Alie: Yeah. I don't know what we think everyone else has.

Dr M: And that's what I'm saying. I think you need to pull your friend aside and say, "look, you know, let me see yours," and then, "Okay, mine are much better. I'm happier now."

Alie: That's the thing is maybe we just don't see enough boobs.

Dr M: I think that's what it is.

Alie: We got to show more boobs!

Dr M: I think we gotta see more boobs on TV.

Alie: All right!

Dr M: And then you can make an assessment and you say, "Mine are actually great!" I always tell my patients, if they're happy and they're healthy, they're fine.

Alie: They're great boobs.

Dr M: They're great. They're healthy boobs. That's the best.

Alie: Can we do a rapid-fire round?

Dr M: Oh, sure.

Alie: So, a couple more questions. Listeners who donate to Patreon get to ask you questions. Anna Thompson wants to know: Does the makeup or shape of your breasts factor into your risk of getting breast cancer?

Dr M: No, absolutely not. The only thing that makeup and shape does is it affects maybe how the mammogram may look. So if your breasts are more dense, you need a mammogram and ultrasound. We still can pick things up on a mammogram, but not as easily as if your breasts were fattier.

Alie: It's so weird that some can be fattier and some can be denser.

Dr M: Yeah, and that's somewhat familial, somewhat genetic. All the women in your family have similar breast tissue.

Alie: Good to know.

Dr M: It's important.

Aside: Here's my pitch: set all of your family reunions on European beaches, like happy, unashamed, nude lizards. You know the drill, send me a postcard.

Alie: Here's Carl [ph.] wants to know: I've heard aluminum in deodorant contributes to breast cancer...

Dr M: Oh god, no! People, wear your deodorant. Please wear your deodorant. We get that question all the time. Please wear deodorant! It does not... there's no evidence to suggest that it does increase your risk of breast cancer. If it really drives you nuts, use something that does not have aluminum. Tom's of Maine for example, but you'd have to apply it many times. I've tried and you just need to apply it many times, but please wear deodorant.

Alie: Right. And I know that those crystal rocks work for like one day and then the next day they just don't.

Dr M: They just don't. So just, please wear deodorant.

Alie: So as a New Yorker who probably gets on the subway...

Dr M: Yeah as a New Yorker, please wear your deodorant.

Aside: I did fact check this and according to Cancer.org, "There are no strong epidemiologic studies in the medical literature that link breast cancer risk and antiperspirant use, and very little scientific evidence to support this claim."

So, there you have it. Also can I tell you the weirdest story? No, you know what? I'll save it for my secret at the end of the episode. Also, if you've never listened to the very end of the episodes, after the credits, I tell you a secret. So if you've turned off the show during the credits every week, ho boy! [*walkie talkie Alie voice*] Okay, back to rapid fire.

Alie: Becca wants to know: As the unhappy owner of a set of lumpy boobs, I get mammograms and ultrasounds on these jerks twice a year. Is there anything else I could do to stay healthy? Is the six months between squeezes too much time?

Is there anything she can do to keep them healthy in between?

Dr M: First, don't call them jerks. They're happy and healthy. They're your friends. The girls, they don't mean to be disruptive. Lumpy is not a bad thing. It's just a type of breast

tissue. In fact, the lumpier, the more they sit up nicely for you. Fatty breasts tend to go down. So yeah, that's why when you're a 20-year-old they're up here, and as you age they become fatter, and they go look at your toes for a minute. So that's the difference. Be happy that they are the way they are.

No, six months is... Doing it every day or shorter than that is not necessary. It hasn't been proven to find anything earlier. I think the things we talked about, exercise, nutrition, providing a safe environment for your cells so that nothing grows, a good soil, is the best thing you can do in terms of prevention. I really do.

Alie: That's good to know. I hadn't even thought about that. Jane Ennis wants to know: How have we not developed a better way to screen for cancer than putting our boobs into a honka honka machine?

Dr M: Yeah. We just haven't. It's a good thought. I think in the future we will probably be better at that. There's been a number of attempts at looking at your blood to see if there's anything that we can pick up, like a marker to say "Hey, this person needs to be screened specifically." The technology is not there. However, I would encourage everyone to donate to the Komen's of the world, the breast cancer research foundation, so that people have enough funding to do research to find those things.

Alie: To make better honka honka machines.

Dr M: That's what you want, better honka honka machines. [*honk-honk clown horn*]

Alie: Charlotte Milling [ph.] wants to know: Is there a link between gynecological abnormalities people might experience earlier in life, like endometriosis or PCOS, and the propensity to develop breast cancer?

Dr M: So there's a lot of disruptions that can occur. We know things like ovarian cancer are associated with an increased risk of breast cancer. Things that increase our hormonal state can also increase your risk of breast cancer. And so these are things that we potentially monitor for, but anything more specific than that we don't really highlight as a specific problem.

Alie: Okay. Natasha Bharj [ph.] wants to know: I've seen so many sexist, objectifying, breast cancer awareness campaigns. What is the professional opinion on this? Is any awareness good or could there be negative downstream effects of bad campaigns?

Dr M: Awareness, I think is always good. I think people can get overwhelmed by the pink. Pink washing is what we call it.

Alie: Pink washing?!

Dr M: Yeah. Pink washing. My partner often shows a slide where... a bunch of pink tennis balls. He came across the slide that, I guess it was a Gun Club of America where you can get a gun with a pink handle. And his favorite was Kentucky Fried Chicken's pink buckets. You can get cancer while you're preventing cancers. Don't eat fried chicken. It's great tasting, trust me, but it's unfortunately one of those foods we try to avoid.

Aside: So that term 'pink washing' especially refers to companies whose products do not help prevent cancer in the first place, but they make a big show about donations and awareness, after they cause cancer, sometimes spending more money on marketing their pink products than is actually donated to the cause. So, you may have to read the fine print, literally.

A few years ago Dick's Sporting Goods was caught with the teeny tiny disclaimer on their site saying that some of the companies selling the pink items they're hocking don't even donate to a charity. [*irritated sighing*] Ugh! It's like having a cool party and some friend of a friend invites Capitalism, who spills hot sauce on the carpet, insults the host, and clogs the toilet before it leaves.

Dr M: But you can get overwhelmed by it. And I think if you remember the spirit of what it is... and it's good that we're overwhelmed by it because there was a time where nobody spoke about it at all. And I think October is a celebration of those times, and that we will never go back to that, that we are here and we're proud, and that knowing about breast cancer, and there's still some women out there who fear it and don't say anything. They still come into my office. That's who that month is for.

Alie: Marissa Burr [ph.] wants to know: How do you feel about marijuana as a substitute for chemo? And I'm wondering if she means a substitute or something that helps you through chemo.

Dr M: I hope she means it helps you through chemo, meaning the side effects. I believe that especially with side effects from chemotherapy, you need to do whatever it takes to be able to get through chemotherapy. Marijuana has many positive effects with respect to nausea control, appetite, and if that's the thing that works for you, then please by all means because the most important thing, as I said, is to be healthy, and to be able to continue eating. And if you're nauseous and not eating, even though we're treating you, the soil once again is not being fed well, so bad things can take an opportunity.

Alie: So if the weed makes you crave chicken fingers, maybe, hold back and just try to eat more broccoli?

Dr M: Try. Although some of my patients say they have the 'C card' so they technically are allowed to do whatever they want right now. And I said no, *because* of the C card you are not to do it. But just try to make smart food choices. I think today especially we have a lot more healthy options that taste good. I think people just jump for something because

it's convenient. But if you clear your pantry of the bad stuff and put something in that's really good, I think you'll choose that.

Alie: And are there any movies where breast cancer or a breast cancer patient is depicted that you feel like they get it right or get it really wrong?

Dr M: Well, not a movie, but there was a famous scene in *Sex and The City* that I love.

Alie: Oh what is it?

Dr M: It's the one where one of the characters, and I am bad on names right now...

Aside: PS: looked it up and it was... [*clip from Sex and the City*]

Carrie Bradshaw: Samantha you look so pretty today.

Samantha: Thanks! I have cancer.

Dr M: Basically, she'd had chemotherapy and breast cancer, very sexy woman who obviously you're seeing the effects of the treatment and she was giving a speech...

Aside: [*Samantha: If you want to see the face of breast cancer, look around you.*]

Dr M: With this wig on, and her younger boyfriend, very handsome guy was in the audience. And she starts talking, and there's a lot of women in the audience, and she starts sweating because of the lights and the hot flashes from the therapy she was getting. And finally she said, "oh, F it" and pulls the wig off. And this woman who was very nervous about the way she looked and everything, the whole crowd just cheered [*applause in background*] and stood up and started pulling their wigs off.

And I think that's what I always believed about breast cancer. It's very empowering, if you have the right support and the right people around you to help show you that this can be a very empowering disease, "You kicked cancer's butt." Or if you're in the fight, "you're fighting cancer's butt," you're getting up every day and doing it, no matter whether you're somebody who's stage four with disease that's going to be there, or somebody that we've treated and disease is no longer there. You're still getting up every day to fight this thing and you need to be empowered by that because not everybody can do that. Right?

And so, that probably is a scene that still sticks in my mind as portraying a very empowered person because this woman was dealing with a very difficult time. Her sexuality was being affected. The way she looked was being affected. And finally in that one moment she basically said, "Screw it, I'm going to be who I am. And, screw you cancer, which I think is a good thing."

Alie: That is a good thing! Do you have any patients that are like, "I know that it's a battle. I know I'm fighting, but some days I'm just like, oh, I'm not a warrior."?

Dr M: All my patients. I think you're not human if you don't do that, and I think that's why I say you have to pay the piper sometimes. Those moments are going to come, and to pretend that 24/7 you're fine, I think you're kidding yourself. And it will come at a moment when you're not expecting it, in the middle of a shopping mall for example. You need to recognize that you just almost fell off of a cliff, and in that moment realize that someone gave you a parachute too. [*cry shimmer*] But I think you need to do both. I really do. I think you'd be kidding yourself if you're not.

I think one of the things that's trickiest for my patients is they go through treatment, they get through everything, and then we say "Fine, things are great. I'll see you in three months or six months," and they're like "Well wait, wait a minute. Why, where you going?" Because now we've put them on a survivorship track and they're not ready mentally and emotionally because now, "Well now what do I do? Am I waiting for the next bomb to go off?" It's human, but that's where we're working on trying to empower these patients through survivorship planning. Now you're a survivor. This is what we need to pay attention to. These are some of the side effects that can happen, but you're still ours. You know, you're still our family member and we want to make sure you're okay.

Alie: I always do a segment about debunking flim-flam. Are there any major myths or misconceptions that you're like, "if I could tell the world..." Like, megaphone [*megaphone voice*] "This is not true, do this instead." Anything else that comes to your mind, just a myth about breast cancer that you're like, [*megaphone voice*] "Nope, got it wrong."?

Dr M: That mammograms cause breast cancer.

Alie: Oh no!

Dr M: They think that radiation and mammograms will give you breast cancer. The radiation in mammograms are equivalent to the radiation of flying back and forth to California three times. It's not going to cause cancer. That's one of the myths that I hate and you'll hear me give an hour lecture on, because it's the one tool we have that actually can pick this up as early as possible. When we come up with something via blood test, via x-ray vision glasses, whatever you want, then fine, we can debunk mammograms. But right now it is the one thing that made a difference between the 1970s and '80s, and the women that are so empowered today to yell and scream about why we don't need mammograms. So that would be the one.

Alie: And two more questions I always ask. What about your job sucks the most? What is the hardest part of your job? The most tedious part, the part that you don't look forward to, the part you're, that you're like, "Uuugh"?

Dr M: The most tedious part of my job, aside from my charts that I have to do, the electronic medical records. You mean, aside from that? I just wish I could just dictate it like, "Okay, it's done." Aside from that, I actually like most parts of my job for sure, because remember, I'm seeing people who are at their worst moment in time, and the little things that may annoy me, the things that I don't like that I'm very upset about, if a patient doesn't get treated properly, and I mean from my custodian all the way up. This patient walks into our doors, they are a family member, and they have to be treated as such.

And I'm lucky to be in an institution where that happens, but occasionally you get somebody who just is not thinking about why this person's here. That will send me through the roof. Because this is a very vulnerable time for a person. It really is. Even if I tell you you're going to be fine and we make jokes, etc., I just told you you have cancer. That's never as a human, never not gonna cause shudders down your back. That's never not going to happen. It's always going to be something that creates that feeling, and for anyone here to either brush somebody off or not recognize the importance of that really does bug me. You have to have some humanity. This person is sitting here with a life-threatening diagnosis, even though thankfully we can take care of it. You just never know.

Alie: Your staff were very nice to me in the waiting room.

Dr M: Yes, good. So I don't have to fire anybody?

Alie: No!

Dr M: Okay, good. Good.

Alie: What is the thing that you love the most about your job? What do you love about your work? I know that that's going to be hard to pick for you.

Dr M: I love... It's a hard one. I love the hug. I love the hug from my patients, especially after I've done surgery and I see them for that first time post-operatively and say "welcome to being cancer free," [*cry shimmer*] and they just grab me.

Alie: Oh no, you're making me cry!

Dr M: I know but they do. They just grab me. And it's funny because I think I give off a good vibe that I'm a hugger, because I am a very big hugger, but they kind of like lean in, and then they just grab me and whisper in my ear, "Thank you." I think that is worth everything. Everything that I've ever done is in that moment. Everything.

Aside: So after holding it together and trying not to cry this entire time, most of the time out of pure inspiration and hope, I finally just broke, and my mascara was not where it started.

Dr M: I'm sorry!

Alie: You made me cry! That's so wonderful though.

Dr M: That is, that is actually, that is my favorite moment for sure.

Alie: I mean, are you, kind of, glad you didn't become a mechanic?

Dr M: I do tinker once in a while, but I am. you know, you get pretty emotional when your car's not working, so if I tell you, "you know what, I can fix it for \$5," I think people would hug me too, but I think my Mom was right, for sure. This is much better than being a mechanic.

Alie: I think you picked the right job.

Dr M: Thank you.

Alie: Thank you so much for doing this.

Dr M: My pleasure. Anytime. I love doing this.

Alie: You're my favorite surgical oncologist.

Dr M: Aren't I your only surgical oncologist?

Alie: Well, yes. But also my favorite. Thank you so much.

Dr M: My Pleasure.

So remember to ask smart people stupid questions because it may just save your life. Or somebody else's. Dr. Manasseh is at the Maimonides Medical Center, in Brooklyn New York. And for more resources, Cancer.org, BreastCancer.org are all there, so many sites for resources. Susan G. Komen is the largest nonprofit that deals with breast cancer awareness, research, community health, global outreach and public policy. They're at Komen.org, but you may have your preferred charities. Also, the third week of October is specifically 'Male Breast Cancer Awareness Week'. So now you're aware of that, too!

Consult your own health care advisors and providers if you have questions about screening and treatment. And share your stories. This episode is dedicated to everyone of all genders who has had or been affected by breast cancer and the amazing folks who are out there working toward a cure and helping patients. My Aunt Norma, my pretty-much-second-mom Kathy, and Steven Ray Morris's grandma are all survivors. And my cousin just this last week was diagnosed. She personally echoes Dr. Manasseh. She says get a baseline mammogram at 40, and she added that if you have dense

breasts ask about 3D mammograms. She undergoes surgery this week. So please keep my cousin in your thoughts if you can. She's a tough cookie and we love her very, very much. [*cry shimmer*]

Thank you to Boni Dutch and Shannon Feltus, thanks to everyone on [Patreon](#), part of your support this month goes toward a donation to breast cancer research. Thank you Steven Ray Morris for editing this all together and also for the amazing Ologiesology bonus episode you hosted this past week. You killed it. Thank you Erin Talbert, love to your mom Kathy, and to Hannah Lipow for adminning the [Ologies Facebook group](#). Thanks Nick Thorburn who wrote and performed the theme song, and is in a band called Islands. Also, Steven Ray Morris hosts the *Purrrcast* and *See Jurassic Right*. I figured everyone who listens to this podcast listens to his already, but if you don't, you gotta check that out.

Really quick before we get to the secret, I wanted to plug two friends' things. These aren't ads, they don't even know I'm doing it, but I just think they're cool and I feel like Ologies listeners would be so up in this. On October 20th in New York at Caveat NYC in the afternoon, they're doing a deep dive with a deep ocean expert, and they're Skyping to people on the research vessel Falkor for a live Q&A. It's going to be bananas, and it's hosted by *Science Friday* and also by Teuthologist, our favorite squid scientist, Sarah McAnulty. So Caveat NYC has tickets, they're like \$15 or something, and it's October 20th.

And then also if you want to do sci comm for a living, do science communication, you want to start a podcast, or do videos, or write books about science and you're not quite sure where to start, or if this is your deal, if you can get yourself to the west coast on November 2nd-4th, I have friends, Cara Santa Maria, Sarah Curtis and Jason Goldman, they're awesome and they run this camp called SciComm Camp at [scicommcamp.com](#), and they have lectures, smores, horseback riding, seminars, workshops. It's all about science communication with some of the best people in the world who do it, who all gather there. So, I just wanted to tell you guys about it so it didn't pass, and you didn't say "Alie, why didn't you tell me about it?". I always go, and I love it, and it's been so helpful for me too. So those are two things my friends are doing that I just wanted to tell you about.

And now I promised you a secret at the very end. Alright. We're talking about crystals, deodorant, I was talking to someone about this a while ago, about how, "But don't those crystals just stop working spontaneously?" Also, what's with these magic crystals, they're just a big hunk of a mineral salt, and when you gets them wet or you rub them on your damp armpits it gives you a layer of salt on your skin, and the bacteria that would normally cause you to smell like pepperoni in a hot car can't grow on your armpits, that's why you don't smell. You still sweat, but you won't smell, I guess because the bacteria flora can't survive in a salty environment like that. So there you go.

But I've heard of people using them but they just stop working for them. Maybe their bacteria flora changes, or they're not getting it wet enough, whatever. I was talking to this woman about it, and I said, "Yeah what if you're dancing with the governor and all of a sudden it stops working and you smell terrible?" She was like, "That's so weird, because that happened to me. I was using crystal deodorant, it stopped working." She was at the governor's ball, dancing, and she realized she smelled bad! And I was like, "That's really weird! I don't know where I got 'what if you're dancing

with the governor,' but it happened to you at the governor's ball." Anyway, thanks for listening, please take care of yourself. I love you, kiddo.

Alright. Berbye!

[*Outro music*]

Transcribed by Rosie Thomas, Wolverhampton, UK, that lady whose face always seems really cross but inside she is happy, thinking about sharks, dinosaurs, and cats.

Some links which you may find of interest:

[Some breast cancer basics](#)

[Foods and inflammation](#)

[Yew can kick cancer's ass](#)

[Betty Ford spreading the word](#)

[Nice but annoying: benign breast lumps](#)

[Hormones and your bewbs](#)

[Types o' tumors](#)

[Edith Bunker on "All in the Family"](#)

[Pink Washing: Like capitalism crashed your party](#)

[The history of boob implants](#)

[Get nude with grandma](#)

[Deodorant and ...cancer? Eh.](#)

For comments and enquiries on this or other transcripts, please contact OlogiteEmily@gmail.com